

MISSOURI. Conservationist

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Mandate of the People

In nearly 30 years as a conservation agent I have had the opportunity to work with thousands of citizens in all sorts of situations. The biggest blessing of being in this business is that the majority of folks I have

met have been wonderful, upstanding citizens — even most of the ones found in violation of the *Wildlife Code* of Missouri. Conservation law enforcement is mostly proactive; we exercise the principles of community-oriented policing and work with the public to ensure compliance before violations occur. Other law enforcement agencies, while they work well with the community, are more reactive, responding to situations because a violation has already occurred.

Unfortunately, some folks do not seem to understand the importance of all types of law enforcement. It is not uncommon for conservation agents to hear comments such as, “Why don’t you go catch some ‘real criminals?’” or “I was just fishing without a permit, what’s the big deal?” While the consequences of violating certain laws are more severe than others, all laws are passed to be obeyed.

In this country, law is split between a federal system and the 50 state systems. In very general terms, the United States Constitution is the “supreme law of the land.” No law can be passed which violates the U.S. Constitution. Each state also has its own constitution. These are the supreme law for the respective states and cannot violate the U.S. Constitution. We also have a legislative branch which is in charge of passing legislation. No law passed by any legislature can violate the Constitution.

The American model of law places ultimate authority in the people in the sense that the people make the law themselves (the Constitution), or mediate through elected representatives (the Legislature).

A circuit judge I worked with in the beginning of my

career explained to me that the Constitution is a mandate of the people not to be trifled with. Missouri conservation laws exist because the people mandated them through language found in their Missouri Constitution.

In 1936, Missouri citizens demanded, through a change in the Missouri Constitution, establishment of the Conservation Commission and laws based on science in order to protect and conserve the forest, fish and wildlife resources of the state. However, the will of Missouri citizens was tested during the Constitutional Convention of 1943–44. During this effort to update the Missouri Constitution, those opposing the nonpartisan conservation agency tried to abolish the Commission as it had been established in 1936. However, the people were so impressed with the progress in scientific resource management in just seven years that they stood

their ground and reaffirmed what was decided in 1936. Once again, a mandate of the people was sounded.

A court decision in 1906 confirmed the criminal nature of fish and game law violations in a case cited as *State ex rel Rodes v. Warner*. The criminal nature of such violations was codified by the General Assembly in 1945. In other words, it is a crime to violate the *Wildlife Code*. Conservation agents of the Department take an oath to enforce these rules and will continue to do so with integrity, as mandated by the citizens of Missouri way back in 1936.

Larry Yamnitz, protection division chief











OUR MISSION: *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*



On the cover is a gray treefrog and left is common scouring rush, both by Noppadol Paothong. To learn more about photographing the smaller things in nature read *Finer Focus*, starting on Page 14.

NextGEN

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FOXY MUG

The July cover shot has taken my breath, Noppadol Paothong has definitely defined Missouri's wild-life with this shot.

I cannot keep from looking at it and the realism that Noppadol has captured. I have been a fur harvester all my life and have found the grey fox my favorite to trap and call. They are quite the challenge, not to mention their unique fur and beauty. I have photographed many in foothold traps over the years, but have never managed to capture this great furbearer as Mr. Paothong has. Excellent, thank you!

Tad Brown, via Internet

SCRUB-A-DUTCH-DUTCH

Jim Low's article on dutch oven cooking in the June issue [*Dutch Oven Cooking 101*] was excellent, but I'd like to know if he or someone else at the magazine could give some advice on

clean-up. That's always been one of the most challenging aspects of the dutch oven for me.

Tom Polokonis, via Internet

Author's note: I'm glad to shed a little light on the question of cleaning cast-iron cookware. Opinion on this subject is divided into two sometimes hostile camps—those who use soap and those who don't. The soapers think you need soap to get an oven truly clean and avoid food poisoning.



The anti-soapers think using detergents ruins the nonstick "cure" from cast iron. I think both camps are wrong ... and right.

You can use soap on a Dutch oven and still maintain the cure if you don't use a harsh abrasive and scrub down to bare metal. On the other hand, you can get the same result with hot water and a mild abrasive, such as a plastic scouring pad. Either way, it's critical to heat the oven moderately after each use to evaporate any lingering water, which otherwise can cause rust. You want the metal hot enough to make a bead of water evaporate with a sizzle, but not hot enough to burn off the greasy cure. Heating effectively sterilizes the metal, so not using soap doesn't have to be a health hazard.

It's also best to apply a very thin coat of oil or grease after each cleaning. I prefer vegetable shortening, but bacon grease or liquid oil work, too. Always store Dutch ovens with the lid propped slightly open to allow condensation to evaporate during storage.

Regardless of which cleaning method you use, you occasionally are forced to scour down to bare metal when you burn food onto the metal, cook with acidic foods like tomatoes, or when you overheat the oven and char the oil that formed the "cure." That's not a disaster. It just means you need to reapply shortening, oil or grease and use your kitchen range to heat the utensil to 350-degree for half an hour or so. Let it cool in the oven, and you should have the start of a new cure.

A really good, totally nonstick cure comes from repeated use followed by moderate cleaning. It also helps to use your oven, skillet, etc. for really greasy cooking, like frying fish or roasting a whole chicken. Those uses heat the metal in the presence of lots of grease to build a thick, slick cure.

I hope this helps, and I hope you plan to use your Dutch oven this weekend. By this time tomorrow, I hope to be making a blackberry cobbler!—Jim Low, news services coordinator

MISSOURI. Conservationist

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Reader Photo GOLDEN OPPORTUNITY

Yu Zhang, a doctoral student at Washington University in St. Louis, sent in this photo of a male American goldfinch. Yu, who has been an avid birder for seven years in his native China, captured this image at Forest Park in St. Louis. Since coming to Missouri, Yu said that he has been able to add species to his life list that he would not likely have seen in China, such as: bald eagles, wood ducks, tree swallows, northern cardinals and ruby-throated hummingbirds.



ASK THE OMBUDSMAN

Q: Can snakes bite people while both are in the water?

A: Yes, snakes can bite while in the water. The snake's striking distance is less while on, or in, the water due to lack of a solid surface

from which to launch the strike. In Missouri, we have several species of nonvenomous water snakes whose diet includes fish and frogs. These prey are often taken while the snake is in the water or is underwater. As on land, most snakes in the water will try to avoid people.

Q: How do wild grape vines rise straight up, 20 feet or more, to the crown of trees?

A: They don't. The old grape vines that you see suspended from the crowns of trees had support in reaching those heights. When an opening occurs in a forest through logging, natural tree fall, or wind storms, a thick growth of young trees becomes established while there is plenty of light for growth. Young grape vines will grow rapidly then and use their tendrils to attach to other plants for support. As the new forest continues to grow, the



Broad-banded watersnake

JIM RATHERT

canopy of tree crowns will again close and severely limit the amount of light that penetrates beneath the canopy. Many of the plants that grew well in full sunlight will eventually die, fall and rot away. By that time the grape vines that were attached to those plants will have their leafy stems up in the canopy and the older, woody portions of the vines, which no longer have tendrils, may be suspended in mid-air or draped against the trunks of older trees.

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at Ombudsman@mdc.mo.gov.

TIME CAPSULE

August 1949

Showboat Skipper was written by Bill Gamble about a Conservation employee and his traveling projector. Jim Gladden was a forestry assistant who drove a forest-green truck known as the "Showboat" that was equipped with a generator for electricity and a projector. He showed a movie on forestry, fire prevention and wildlife to rural Missourians in every part of the state. He traveled 35,000 miles a year doing 45 shows per month. He gave a brief informal talk to the public about the Conservation Commission and the need for restoring and protecting Missouri's wooded hills. Note: the "Showboat" is on display at the Twin Pines Conservation Education Center in Winona. — by the Circulation staff





Species of Concern

Decurrent False Aster



Species of Concern: Decurrent false aster

Scientific name: *Boltonia decurrens*

Distribution: St. Charles County

Classification: State and federally endangered

To learn more about endangered species: www.MissouriConservation.org/8227

THE NATION'S LEADING expert on decurrent false aster calls this critically imperiled plant a "floodplain fugitive." Unable to compete with other plants for sun and space, it sprouts in areas where flooding or other disturbances create patches of bare soil along ditches or in other moist, sandy, low-lying areas. Development of most of its potential habitat has relegated this plant to wet edges of fields, borrow areas and lake shores. Plowing and planting in river bottoms increases soil erosion, which smothers decurrent false aster's seeds and seedlings beneath a blanket of silt. At the same time, levees have greatly reduced the floods that create bare-soil areas where this species can thrive. Because of decurrent false aster's gypsy lifestyle, its distribution changes from year to year. This complicates efforts to ensure its survival. The Conservation Department partners with other government agencies and private landowners to document and protect existing populations.

Plains Spadefoot

Dig this unique little amphibian!

Often mistaken for a toad, the plains spadefoot (*Spea bombifrons*) has smoother skin and vertical eye pupils, like a cat's. Toads' pupils are horizontal. Its defining characteristic is a hard, wedge-shaped spade on each hind leg. This "spade" gives spadefoots their name and equips them well for life underground. Plains spadefoots live along the Missouri River, where they burrow in sandy soil. They are smallish frogs, measuring 1.5 to 2 inches. They eat earthworms and insects.



Plants Go Wild at State Fair

Demo garden showcases native plants' versatility.

Whether your yard is moist and loamy or dry and rocky, you can find ideas about landscaping with native plants at the 2009 Missouri State Fair Aug. 13–23. This year's demonstration gardens at the Conservation Pavilion follow the fair's "Rural Lifestyles" theme by inviting fairgoers to "Discover Nature Near You." Features include a rocky glade, a woodland setting, a water feature and sunny border areas. Indoors you will find a riverbank diorama with live native plants. The Conservation Pavilion is near the south end of the fairgrounds. While there, take time to cool off in front of several aquariums or in the air-conditioned discovery room.





Great Vacation Side Trip

This state-of-the-art facility draws 30,000 visitors a year.

Vacationers at Lake of the Ozarks and Truman Lake can visit a 12,700-gallon aquarium and take youngsters fishing, all free. The visitor center at Lost Valley Fish Hatchery near Warsaw is open 9 a.m. to 4 p.m. daily through Labor Day. Fishing tackle and bait are available for visitors younger than age 15 to catch channel catfish, sunfish and more in a stocked pond. Visitors also can stroll around dozens of fish-rearing ponds. Tours can be arranged in advance for groups of 15 or more. For more information, call 660-438-4465.



Some also have archery or pistol ranges. The most modest unstaffed ranges consist of little more than earthen berms to provide safe backstops for rifle sighting. Others are fully equipped, handicap-accessible ranges with backstops, covered concrete shooting benches, target holders and pit privies. For more information, visit www.MissouriConservation.org/14114.

On the Range

Sight in rifles safely at conservation areas.

Hunting seasons are fast approaching, so it is time to check the alignment of your rifle sights. You could go to one of the Conservation Department's staffed shooting ranges in the Springfield, Kansas City or St. Louis areas. If you don't live near any of those, or if you prefer a more independent, solitary experience, you can visit one of the dozens of modest shooting ranges on conservation areas. These are located in 75 of Missouri's 114 counties, ensuring that hunters across the state have safe, legal places to sight in rifles, pattern shotguns or sharpen wing shooting skills on clay targets.

Trail Guide

CANEY MOUNTAIN CA



MISSOURI HAS FEW areas that offer so much variety for so many trail users as Caney Mountain Conservation Area in Ozark County. This incredibly rugged area features a 6.5-mile multi-use trail open to hik-

ers, bikers and equestrian users. This linear trail extends from a parking lot near the area's northwest corner to another on the southeast with several amazing vistas. In between, it traverses rugged, rocky, sun-drenched glades inhabited by gaily-colored collared lizards (also known as "mountain boomers"), roadrunners, tarantulas and other wildlife adapted to dry landscapes. For hikers, the 1.5-mile Spout Spring Nature Trail traverses the shady depths of Caney Creek Valley in the area's interior, while the .5-mile Long Bald Nature Trail describes a loop in a glade landscape near the west boundary. Numerous gravel roads and trails through the area also provide mountain biking opportunities. Bicycling is allowed only on gravel roads and trails open to vehicle traffic. More details about Caney Mountain CA and its trails, including a map, are available at www.MissouriConservation.org/a5202.





TAKING ACTION

Adopt-A-Trail: The Green Team**Program:** Adopt-A-Trail

Mission: The Conservation Department's Adopt-A-Trail Program is a volunteer program providing opportunities for hikers, bicyclists and equestrians to assist conservation area staff by monitoring, maintaining and enhancing trails and trail head facilities.

Learn More or Volunteer: Visit www.MissouriConservation.org/8802, e-mail: trails@mdc.mo.gov or call 573-522-4115 ext. 3636

“MY GROUP GOT started about two years ago. Walmart encourages making a difference in your community, so I decided to adopt a trail and get Walmart associates involved,” says Renee Reynolds, Town & Country Walmart store manager. “I thought this was a great opportunity that would help engage my associates and help make a difference in the community we live in.”

Renee and her “Green Team” have adopted trails at the 1,008-acre Forest 44 Conservation Area in west St. Louis County. Last year, they conducted litter cleanups and planted tree seedlings. This year they plan to help with invasive species removal, litter cleanups and “whatever projects are needed.”

“One of most successful cleanups I participated in was our first litter cleanup as ‘The Green Team,’” says Renee. “We had over 30 Walmart associates, managers and family members. Our team collected over 40 bags of litter, two water heaters and a dozen golf balls. The golf balls were later put to good use by one of the Green Team volunteers. It was hard to believe all of this litter was collected in two hours!” Renee and her team say that they look forward to volunteering with Adopt-A-Trail for many years to come.

Nominate Now

Honor Missouri citizens who contributed to conservation.

The Missouri Conservation Commission would like to recognize citizens who make outstanding contributions to conservation. Nominations are being sought for the Master Conservationist Award and the Missouri Conservation Hall of Fame. The Master Conservationist Award honors living or deceased citizens while the Missouri Conservation Hall of Fame recognizes deceased individuals. Those who can be considered for either honor are:

- Citizens who performed outstanding acts or whose dedicated service over an extended time produced major progress in fisheries, forestry or wildlife conservation in Missouri.
- Employees of conservation-related agencies who performed outstanding acts or whose dedicated service over an extended time produced major progress in fisheries, forestry or wildlife conservation in Missouri.

Anyone can submit a nomination, which should include a statement describing the nominee's accomplishments and a brief biography. Please submit nominations by September 1 to Denise Bateman, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102 or e-mail Denise.Bateman@mdc.mo.gov.

A screening committee appointed by the Department's director meets semi-annually to consider nominees, with the Conservation Commission conveying final approval.





The Night Patrol

When the air cools down, the fishing action often heats up.

August offers anglers a blazing sun and sticky days. Early morning fishing can be pleasant, but by about 9 a.m. the lake often becomes uncomfortably hot and might stay that way until nearly dusk. Some anglers really look forward to summer's oven-like days, however, because they've learned to fish at night.

Almost all species of fish will feed at night. In fact, the variety of fish you might catch is one of the attractions of fishing after dark. Common targets include crappie, white bass, catfish and black bass, but you never know what might show up on the end of your line.

Lights are often the key to finding fish. Shore-bound anglers are likely to catch more fish under dock or park lights than in dark areas. The lights attract insects and plankton that in turn attract fish. Set up your own food chain by placing an artificial light near shore. If you have boat, hang a lantern from a boat bracket or a convenient branch and fish nearby. Anglers often prefer underwater lights, because they don't produce a blinding glare and don't attract airborne insects.

Trolling and casting also have their nighttime followers. Whatever your strategy, it's usually best to set up your equipment and decide on where you'll fish before it gets dark. Be extra cautious when running a motor, and have a light handy for getting your bearings or alerting other boaters.



Henry Sever Lake

Scout it Out



Henry Sever Lake Conservation Area is home to one of only two muskellunge populations in northeastern Missouri.

Name: Henry Sever Lake Conservation Area

Location: One mile north of Newark on Highway KK.

For more info: www.MissouriConservation.org/a5801



GOOD FISHING INFORMATION is as valuable as bait to an angler heading to a new lake. To help anglers, the Conservation Department provides a weekly report of fishing conditions on waters throughout the state at www.MissouriConservation.org/4183. If you were heading to Henry Sever Lake in Knox County, for example, you'd learn recent water conditions and — most important — what kinds of fish are biting and what kinds are not. You could also call the Conservation Department's Northeast Regional office at the number listed on Page 3 and ask to talk to someone familiar with the lake. You're likely to be put in touch with Darlene Bryant, who manages Henry Sever Lake Conservation Area and describes the lake there as one of the most pleasant little waters she's seen. At the Web address shown above, you can find other pertinent information, including a map of the 158-acre lake and details about the boat ramp, disabled-accessible fishing dock, fishing jetties, boat rentals and other facilities, as well as fishing regulations. Find more gold mine lakes through the online Conservation Atlas, www.MissouriConservation.org/2930.



From Dressy to Drab

Many birds use the summer to change into winter plumage.

You may notice fashions changing this time of year both indoors, as retailers preview their fall wear, and outdoors, as many species of birds lose their bright colors. During late summer many birds go through a molting period, during which they replace old feathers with new ones. Depending on the species, molting might be complete or partial. Following the summer molt, many species — especially the males — will have lost their colorful breeding plumage and returned to their basic plumage. Other species replace old feathers with new ones of the same color. Birds also molt from juvenile to adult plumage in a process that can take several years.

Summer is a good time for molting because the stresses of breeding and nesting are over, and new and often more abundant feathers help birds cope with winter cold and migration. A few species, including ducks, geese and swans, replace all their feathers at once, usually in less than a month. Because these synchronous molters can't fly during this period they tend to spend it in secluded places, where they are less vulnerable to predators. Some birds molt more than once a year. Many molt into more vivid colors prior to the breeding season in order to attract mates.



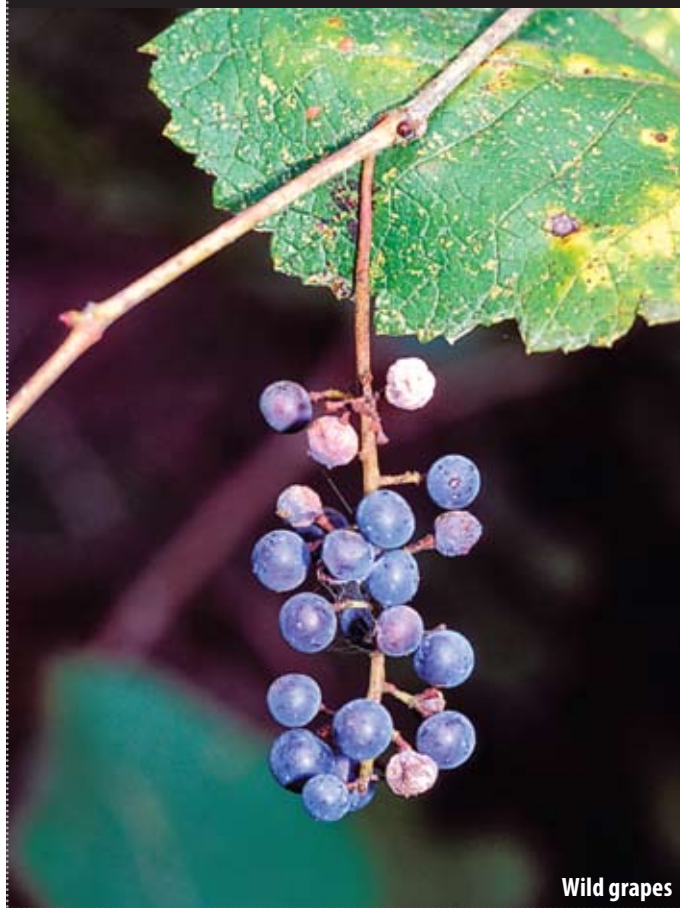
Northern cardinal

A Summer Census

Look in the mud for signs of wild animals.

Think, raccoons, possums, weasels, skunks, muskrat and other wild animals can live in densely populated urban areas. They survive by remaining in cover and living nocturnal lifestyles. They can't help leaving footprints, however, and there's no better way to conduct an animal census of your neighborhood than by looking for tracks in the mud along nearby creeks and rivers. Each species can be identified by its footprint, and you can often tell if the animal that made it was a youngster or an adult, and whether it was in a hurry or just rambling. For help identifying animal tracks go to www.MissouriConservation.org/8314.

NATIVE BEAUTY



Wild grapes

Wild Grapes

SMALLER THAN CULTIVATED varieties, wild grapes still pack a lot of punch — concentrated flavor. We have about seven species of wild grapes native to Missouri. The fruits appear in bunches starting in late summer. Wild grapes are highly edible, although some species, especially riverbank grape (*Vitis riparia*), are sourer than others. Generally, wild grapes become sweeter as the season grows longer. Beware of mistaking moonseed (*Menispermum canadense* L.) for wild grapes whose leaves are similar. Check the seed in the fruit. If it has a single seed in the shape of a crescent moon, it's moonseed, which is thought to be poisonous. Archeological records show that people have been taking advantage of wild grapes long before they were cultivated. The berries, for that's what grapes are, make great jams and, of course, wine. The leaves are also edible. Native Americans found medicinal uses for most parts of wild grape plants. They also used the leaves and berries to make dyes, and the vines for weaving or making rope.

Wild grapes often climb trees and fences by means of tendrils. They can overload some trees, toppling them. Wildlife managers may cut a tree to open up the understory, but leave the vine intact. The grape plant quickly covers the downed tree and nearby brush piles, offering cover and a ground food-source to quail and other animals.



Keep ORVs Out of Streams

Driving in streams is destructive and rude.

With Labor Day coming up, some Missourians will bring out off-road vehicles. That's okay as long as tire prints don't end up in a Missouri stream. Operating ORVs in or through streams kills aquatic insects that fish depend on for food. It also destroys fish habitat and ruins the fun of swimmers, paddlers and anglers. Missouri law prohibits driving ORVs in streams except when fording streams at customary road crossings or for agricultural purposes on land owned by the ORV operator. Doing so under other circumstances can bring fines and suspension of hunting and fishing privileges.



resulted in the deaths of 51,390 fish and other aquatic animals. Municipal pollution accounted for the most incidents (seven) followed by industrial (four) and agricultural (three) pollution. That's the bad news. The good news is that Missourians can and do help prevent fish kills by timely reporting. Quick reporting of dying fish, chemical smells or discolored water allows state officials to reduce and contain fish kills. It also improves chances of finding the causes of fish kills and, when appropriate, holding the polluters accountable. In 2006 alone, polluters paid approximately \$300,000 in penalties, damages and investigation costs. You can report pollution incidents by calling the nearest conservation agent (see Page 3 for regional office phone numbers).

Fish Kill Toll Continues

Citizens' timely reporting plays a critical role.

Would you prevent the deaths of tens of thousands of fish in Missouri lakes and streams if you could? Collectively, Missourians have the power to do this and more. Every year the Conservation Department investigates fish kills that decimate aquatic life. Causes range from accidental spills of molasses to deliberate dumping of industrial chemicals. Of the 24 pollution events investigated in 2006, 17

Stream Team



Lakeside Nature Center



EVERY STREAM TEAM has a specialty. Stream Team 175's specialty is doing everything. Since its formation nearly two decades ago, this team has engaged thousands of people in projects ranging from presenting educational programs in schools and promoting stream conservation through news media to water-quality testing and tree planting. The Friends of the Lakeside Nature Center have planted more than 60,000 trees and dedicated more than 216,000 hours to keeping their chosen stream healthy and beautiful. Their annual Blue River Rescue cleanup event has removed more than 2,225 tons of refuse from the Blue River. Spokeswoman Vicki Richmond says keeping volunteers motivated is not difficult. "Once you have cleaned up a stream it becomes your own river. It does your heart good to see it clean. It doesn't seem like it would be fun, but people get out there, and they have a blast."

Stream Team Number: 175

Date formed: Aug. 20, 1990

Location: Blue River

For more info about Stream Teams: www.mostreamteam.org



Our Glorious Forests

BIG CREEK CA



Summer Tanager

Size: 1,066 acres

Location: Just west of Kirksville, accessible via Highway 11, Boundary St. or West Michigan St.

Highlights: This area borders Thousand Hills State Park and provides the trail head for the hiking/biking trail on the park.

Find more information: www.MissouriConservation.org/a8041



BIG CREEK CA IS a favorite location for birding enthusiasts from nearby Kirksville and Truman State University. The area's forests, savannas and fields provide stop-over habitat for a variety of colorful warblers, as well as breeding habitat for rose-breasted grosbeaks, Baltimore orioles, summer tanagers and yellow-breasted chats. Area managers use a combination

of chain saw work and prescribed fire to restore approximately 400 acres to a savanna community, which is characterized by open, park-like tree spacing. As a result, wildflowers such as rattlesnake master, rough blazing star, leadplant and pale purple coneflower are flourishing. Permitted outdoor activities at Big Creek CA include fishing for bass, catfish and sunfish at several ponds and hunting for deer, quail, rabbit, squirrel and turkey during their seasons. Residents and visitors use the Big Creek CA's nearly mile-long trail to access Thousand Hills State Park's trail system and to pursue backpacking, birding and camping.

Storm Damage Report

Storms flattened 113,000 acres of timber in 36 counties.

No doubt about it, the violent storms of May 8, 2009, made quite an impression on Missouri's Ozark forests. According to conservative estimates, about 204 million board feet of timber across 113,000 acres in the 36 affected counties received significant to severe damage. Most of the damage occurred in Reynolds, Madison and Shannon counties. The Missouri Forest Products Association conservatively estimated the value of damaged timber at \$12,240,000. Up to twice as many acres of light damage are not included in these figures. The 204 million board feet of damaged timber is equal to one-third of Missouri's annual timber harvest.

While the storm's impact was severe, it serves as a reminder that periodic disturbance is a natural, even necessary element of sustainable forest management. Intense but infrequent disturbances open up swaths of forest to renewal and regrowth.

To get help coping with the storm's damage, we recommend you contact a consulting forester and use a trained logger. The "Call Before You Cut" program at 877-564-7483 can provide additional information to landowners considering salvage sales. For more tips on salvaging timber and a link to the Missouri Consulting Foresters Association, visit www.MissouriConservation.org/16522.





Preserving Family Forests

Ensure the future of your family's woodland.

In the next 10 years, more family woodlands will change hands than at any other time in America's history. Many family forests will be split into smaller pieces, sold, or lost due to



tax considerations, and then developed. This loss will hurt families, communities and wildlife. The University of Missouri Forestry Extension's quarterly

newsletter, *Green Horizons*, can help you explore tools for preserving your family's woodland. Call 573-882-4444 and ask for the series titled *Preserving the Family Forest*.

Money to Help Your Woods

Get cost-share to improve your timber forest stand.

Unmanaged woods become overcrowded, causing a shortage of water, nutrients and sunlight for all trees. Whether you own a large acreage or a small woodlot, you can use a forest management practice called Forest Stand Improvement (FSI) to boost productivity and enhance wildlife habitat. FSI calls for the removal of selected trees to improve overall health and growth. With FSI, you decide which trees to keep, reducing competition in your stand, slowing the spread of infestations and disease, and improving habitat values for wildlife. Cost-share may be available for FSI. To learn more about this beneficial practice, order your free copy of *Timber Stand Improvement*.



Write to MDC, *Timber Stand Improvement*, PO Box 180, Jefferson City, MO 65102-0180 or e-mail pubstaff@mdc.mo.gov.

Family Loves Improving Woods

On the Ground



Jim Grabenhorst with his family on their land in Montgomery County

“AMAZING” IS THE word Jim Grabenhorst uses to describe the results of his Forest Stand Improvements (FSI). He and his family began this conservation practice on their 140 acres in Montgomery County back in 2004. Their aim was to get rid of cedars and maples and improve ruffed grouse habitat. “When you open up the canopy, you get an amazing amount of different wildflowers and native grasses.” He adds that the Department’s and other agencies’ assistance and cost-share programs can help make it easy to accomplish FSI. “Take it in stages,” Jim advises. “The plan seemed overwhelming, but Josh Stevens, our Department forester, helped us take it one stage at a time.” Jim is also proud of his four kids’ involvement in the work. “Now it’s just second nature for them to think about conservation and habitat.” To learn more about applying FSI on your land, see the story left.



New Nature Media for Kids

Sign up now for free magazine/web combo.

Help the special kid in your life explore adventures in nature. Subscribe to *Xplor*, the Department's new multi-media "nature-tainment" designed just for Missouri's 8- to 12-year-olds. Packed with photos and illustrations, this free bimonthly magazine will launch in February 2010. Once subscribed, kids will be able to follow Department photographers David Stonner and Noppadol Paothong as they stalk Missouri's wildlife and capture conservationists in action. The "Yuck!" department will give kids the scoop on all things slimy, gooey, stinky and just plain gross. In each issue, kids can see their own and their friends' activities illustrated in the section, "My Outdoor Activity." A companion Web site featuring videos, photos and games will also introduce kids to the Department's nature illustrators, David Besenger and Mark Raitel, who will show browsers how to draw basic critters. To subscribe to *Xplor*, e-mail Subscriptions@mdc.mo.gov.



Discover Nature—Schools

New elementary pond, forest and prairie unit available.

Fun is in your students' nature, and *Nature Unleashed* helps them get outside and explore it. Our new education unit for third-to-fifth graders has colorful, engaging student books and teacher guides. Field-tested activities are aligned to Missouri's grade level expectations, so you can use them with confidence. Using *Nature Unleashed* makes you a part of our Discover Nature—Schools program, which provides training, funding opportunities and other benefits. Get started this year with *Nature Unleashed* and Discover Nature—Schools by contacting your education consultant at www.MissouriConservation.org/15642.

NATURE ACTIVITY



NATURE ACTIVITY: NOPPADOL PAOTHONG

Insect-O-Rama



WHAT'S CREEPY AND crawly, has six legs and lives right in your backyard? That's right — insects! We don't think of them as "wildlife," but insects are among our most fascinating fauna. Learn more about

Missouri's insects at the Northwest Regional office's second annual "Insect-O-Rama." At this event, you'll be able to watch a monarch butterfly getting ready to hatch, use a microscope to get a closer look at tiny critters and play games to win prizes. Or, if you're up for an adventure, join the aquatic insect sampling at the pond — you never know what lurks below! Aside from learning more about insects at this event, you'll get a chance to meet snakes, turtles, fish and salamanders in our exhibit room. The event is free, and no registrations are necessary. We hope to see you there!

Where: Northwest Regional office, 701 James McCarthy Dr., St. Joseph

When: Saturday, Sept. 12, 10 a.m. to noon

Who should attend: All are welcome.

For more info: Call 816-271-3100



Finer Focus


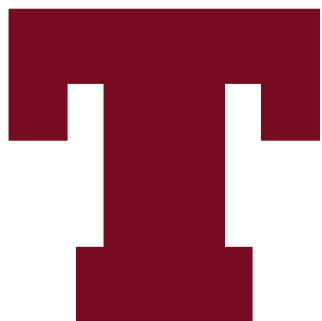
story and photos by NOPPADOL PAOTHONG

Explore nature's depths with a camera and a little patience.


PLAINS COREOPSIS

To accentuate the beauty of this bright plains coreopsis, I decided to use a macro lens because it can magnify a subject to its life size and capture much more detail than human eyes can see. I then focused on the closest stamen of the flower and controlled the depth of field manually.

📷 100mm f/2.8 lens • f/2.8
1/160 sec • ISO 800

he wild flowers are blooming lively in the prairie, and I'm turning the focusing ring on my camera, moving closer and closer to the colorful display. As I get close enough for a single flower to fill the viewfinder, my lens reveals an intricate beauty that can't be seen from a distance. By moving into this "macro" zone, a simple flower has become a work of art.



When I do macro photography, my eyes are constantly searching for a tiny creature or a simple composition that is not apparent from a broader view. I must slow down and be still while maintaining my focus on the subject. I also need artistry and creativity to portray the subject beyond a single dimension. For example, the closer I get to the subject, the more I really have to look for a central point of focus. I can then use my aperture (f/stop) to adjust depth of field and control the emotional impact of the photograph. With a wide-open aperture, everything around the edges of the image will become soft with only the central point of the image remaining in focus. A higher f/stop number will yield much more depth of field and therefore everything becomes in focus. In this manner, I can create, from the same subject, two images with very different visual impacts.

To give close-up photography a try, start by finding the central point of the subject you want to focus on (the eyes of an insect, for example) and start moving closer until the subject begins to fill the whole frame. You will notice that everything surrounding the subject will become soft and out of focus. Using a flash will help highlight the detail of the subject, fill in the shadows, and add contrast to the image. A tripod will give you a sharper image while allow-

ing you to fine-tune the composition. Overcast skies are usually better than a bright sunny day, because you have a more neutralized tone and less harsh shadow being cast on the subject. This allows the image to be more saturated and richer color.

To take full advantage of macro photography, you will need a specialized macro lens that will allow you to focus the subject to its life size (1:1 ratio). Special accessories, such as a close-up filter or extension tubes can also be employed to achieve macro results. Many point-and-shoot digital cameras on the market these days also have a macro feature that will focus as close as a specialized macro lens.

The next time you are in your garden, at a nearby park, or hiking a wilderness area, take time to notice the small details around you. Can you see the hidden beauty of small insects, butterflies, or interesting shapes and patterns that are only revealed when you get close? Macro photography can be challenging. But it is a rewarding technique that can raise your photography to a new level. If you have enough patience and creativity, you will be surprised to find yourself seeing things you hadn't seen before. And, by learning to effectively photograph these small details, you can share this experience with others. ▲



COLUMBINE

A macro lens, or any close-up lens, has a very shallow depth of field. So you need to decide first where you want the center of your focus to be. For this columbine, I decided to focus right at the tip of the stamen (anther filament) and keep the composition as simple as possible. The sky was overcast, which is always helpful to bring out the best color of the flower.

📷 100mm f/2.8 lens • f/2.8
1/640 sec • ISO 500

GIANT ICHNEUMONS

Midsummer can be an exciting time for any insect-seeker. My wandering eyes paid off big time when I found this giant ichneumon preparing to deposit her eggs inside a tree's bark. When mature, they will chew their way out and begin life as an adult. With a constant-moving subject such as an insect, it is a good idea to use auto-focus to help you continue to focus as you move closer to the subject.

📷 100mm f/2.8 lens • f/2.8
1/160 sec • ISO 800





▲ **PURPLE POPPY MALLOW**

Macro photography allows photographers to create works of art, for which they use their camera and lens like a paintbrush. Thus, it requires vision and creativity. For this purple poppy mallow, I wanted to create a blurry, dreamy look like a watercolor painting. I focused on the front petal of the flower and selected a shallow depth of field.

📷 180mm f/3.5 lens • f/4.5 • 1/200 sec • ISO 800



◀ **COMMON SCOURING RUSH**

Common scouring rush can be found along creeks in patches. They consist of a single central stem with multiple overlapping joints. When you see a busy subject such as this, the first thing you have to do is isolate and find a good composition. I was able to isolate just a couple of leaves that made a simple but elegant composition.

📷 180mm f/3.5 lens • f/5.6 • 1/15 sec • ISO 200



▲ **BIG BLUESTEM**

One rainy afternoon, I found this big bluestem covered with raindrops. In spite of rain constantly dropping on the leaf, I decided to give photographing it a try. I kept my focus on the raindrop and let everything else get blurry. When using a macro lens, a sturdy tripod is a must to obtain maximum sharpness of the image.

📷 180mm f/3.5 lens • f/11.0 • 1/15 sec • ISO 200

SPOTTED CUCUMBER BEETLE ►

One evening I found this spotted cucumber beetle crawling on a black-eyed susan. I focused my attention to the beetle, placing my camera directly on the top. The petal in the background simply added more color to the image.

📷 100mm f/2.8 lens • f/2.8 • 1/400 sec • ISO 400





FOXTAIL

My main focus in this image was the grasshopper rather than the foxtail grass. With a sunset low on the horizon, the grass closer to my lens became abstract and translucent. This is one of the unique features a macro lens can offer. I often call it an abstract lens.

📷 100mm f/2.8 lens • f/2.8
1/160 sec • ISO 400

Our behavior is key to a successful
coexistence with this canine.

URBAN COYOTES

by TOM MEISTER, *photos by* NOPPADOL PAOTHONG

The message light was blinking on my phone when I arrived at the office this morning. As a wildlife damage biologist working in the metropolitan area of St. Louis, I receive hundreds of calls every year about wildlife, including problems with deer, raccoons in the garbage, bats in the attic, geese, skunks, rabbits, squirrels, foxes ... the wildlife seen in urban areas seems to increase every day. In fact, before the day was done, I would take a report on feral hogs in downtown St. Louis!

The message was from a man reporting coyotes howling in his subdivision the night before. He wanted to know if he should be concerned. Calls like this are not unusual, as coyotes are becoming more and more common in urban areas all across North America, and Missouri is no exception.

Historically, these adaptable animals lived in open grasslands and prairies, but they have flourished in the habitats that humans have created. In urban and suburban areas, many people enjoy their encounters with coyotes

and, by taking a few common sense precautions, avoid the negative impacts coyotes might otherwise cause.

Education is crucial to human and urban coyote coexistence. When coyotes begin showing up in your backyard, managing potential problems should begin with untangling facts from myths. People should become aware of basic coyote behavior and biology, and understand the differences between true threats and coexistence. Our relationship with coyotes is directly affected by our behavior. Coyotes react to us, and we can choose to foster mutual respect or a lack of respect.

Biological Behavior

One of the keys to the coyote's success is its diet. A true scavenger, the coyote will eat just about anything, including: foxes, groundhogs, mice, rabbits, squirrels, fruits, vegetables, birds, insects, carrion (dead animals) and common household garbage. Although coyotes rarely kill adult deer or take enough Canada geese to impact those



When coyotes begin showing up in your backyard, it is important to understand the difference between true threats and coexistence.



Conflicts between humans and urban coyotes are most common during pup rearing times, when food requirements increase dramatically. If food is provided by people, deliberately or inadvertently, then coyotes will become dependent on these easy food sources.

urban wildlife numbers significantly, their predation on fawns and depredation of goose nests may help slow the growth of those populations. Under normal circumstances it appears that coyotes cause little conflict in urban landscapes and can even be viewed as an asset instead of a liability.

A high reproductive rate and rapid growth of offspring is another reason for the coyote's success. They breed in February and March, and after about 60 days females give birth to four or five pups, which are born in some type of den. In urban environments, dens can be in storm drains, under sheds, in holes dug in vacant lots or parks, golf courses, or any other dark, dry place. Pups are cared for by both parents and can eat meat and move about well by the time they are a month old.

Because food requirements increase dramatically during pup rearing, April through May is when conflicts between humans and urban coyotes are most common. If food is deliberately or inadvertently provided by people, the adult coyotes and their pups quickly learn not to fear humans and will develop a dependency on these easy food sources.

In areas where coyotes are hunted or trapped, they are wary of human beings. In urban areas where they are more likely to associate people with an easy and dependable source for food they can become very bold. They may frequent backyards, porches, or come right up to the door of a house if food is regularly present. Because of this some coyotes have also learned that unattended small dogs and cats can be easy prey as well. This behavior and the lack of



To learn more about nuisance animals, visit www.MissouriConservation.org/7852, or contact your regional Conservation office (see Page 3). For a free brochure, write to *Controlling Conflicts with Urban Coyotes in Missouri*, PO Box 180, Jefferson City, MO 65102, or e-mail pubstaff@mdc.mo.gov.

Coyotes can also suffer from other common parasites and canine diseases. In order to minimize transmission of any wildlife disease wear protective gloves when touching a coyote carcass and wash after any contact.

Preventing Conflicts

When I returned the phone call from that concerned St. Louis-area resident, I assured him that having coyotes in his neighborhood or backyard was not necessarily cause for alarm. Coyotes should be treated like any other animal that could potentially become a nuisance. We briefly discussed the biology and habits of coyotes and what he could do to prevent the coyotes from being a problem.

I advised him not to intentionally or unintentionally feed coyotes by bringing in pet food, securing garbage, and keeping his yard clean and free of refuse. While coyotes are usually not interested in bird food, bird feeders attract rodents, especially squirrels, which in turn attract coyotes, and cats or small dogs should not be let out at night unless personally attended. I told him how to make coyotes feel unwelcome in his neighborhood by harassing them with loud noises (shouting, beating on pots/pans, using an air horn), or throwing rocks and sticks. Also, if it is handy, spraying them with a garden hose is effective at maintaining the coyote's natural fear of humans. We then discussed the importance of informing others in his neighborhood about how to coexist with urban coyotes and to work together to solve conflicts.

He thanked me for the advice and seemed much more at ease about the coyotes he heard howling the night before. He even seemed a little excited about the possibility of seeing a coyote in his urban neighborhood.

Urban Wildlife

Seeing wildlife, such as coyotes, in an urban setting might seem a bit unusual at first. However, coyotes are not the only wild animals to find the urban lifestyle accommodating. Foxes and even bobcats are starting to show up in towns. As with coyotes, learning how to coexist with these new neighbors is fairly easy, and having the opportunity to observe what once was only possible in rural areas can be exciting.

The phone is ringing again ... wonder what it could be this time? ▲

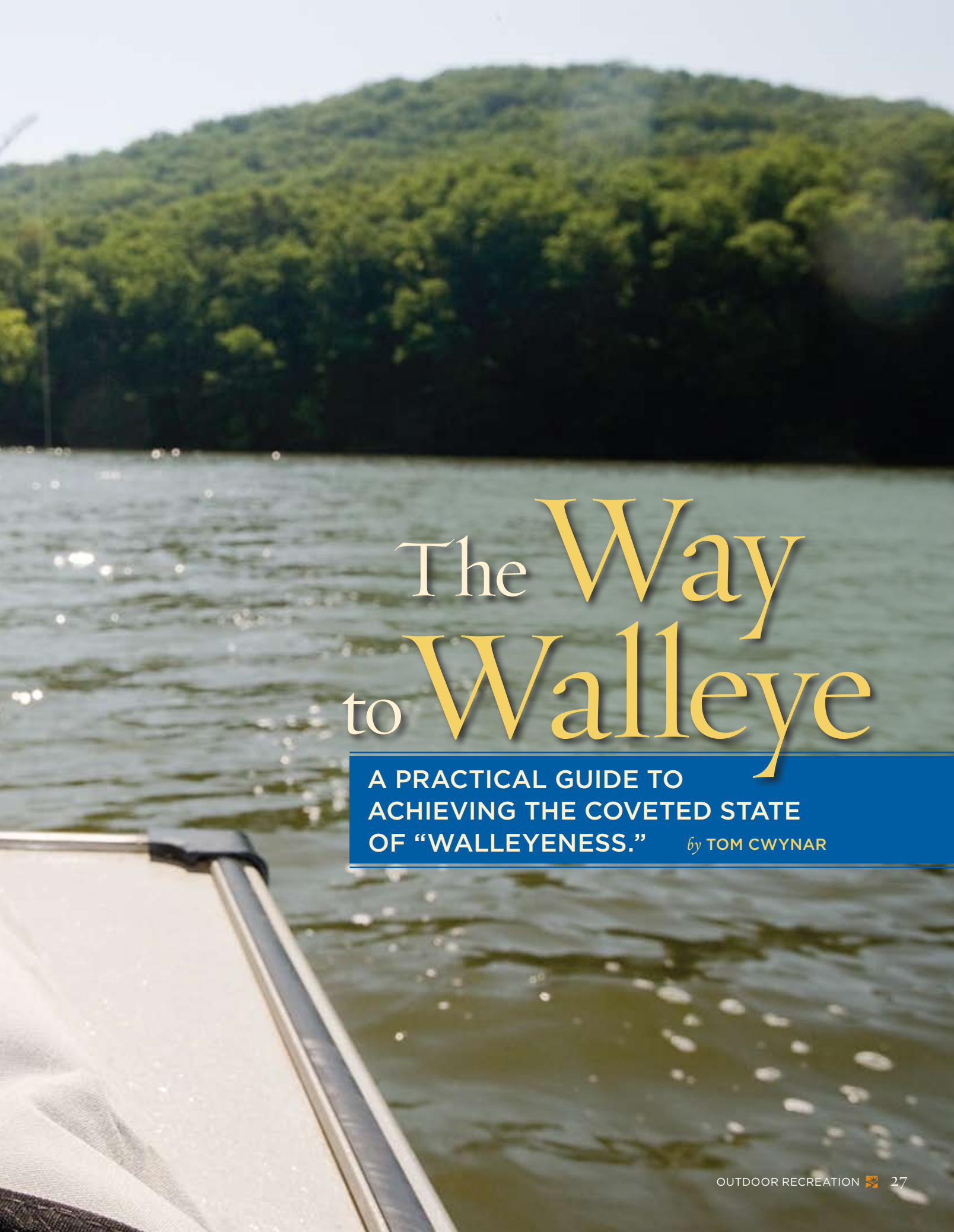
fear of humans is where most of the conflict lies when it comes to urban coyotes.

Health Concerns

Another concern Missourians may have about coyotes in their backyard is the risk of disease. While no incidence of rabies has been detected in Missouri coyotes in recent years, canine distemper virus does occur and mimics some of the neurological symptoms of rabies (convulsions, tremors, loss of fear). Canine distemper is not transmissible to humans but pets should be vaccinated to prevent this disease. Sarcoptic mange outbreaks are common in coyotes and cause the animal to lose patches of fur resulting in an overall "mangy" or poor appearance.



NOPPADOL PAOTHONG



The Way to Walleye

A PRACTICAL GUIDE TO
ACHIEVING THE COVETED STATE
OF “WALLEYENESS.”

by TOM CWYNAR



Walleye are a longish fish; their backs and sides are olive green to brown, and they have white bellies. The record Missouri walleye is 21 pounds, 1 ounce.

Many anglers don't know anything more about walleyes than that they are good eating. That's solid information, of course, but it doesn't help you catch them.

What does help is learning that walleyes are considered a cool-water fish. The species, *Stizostedium Vitreum Vitreum*, generally prefers cooler water than largemouth bass, but warmer water than trout. When water temperatures are in their preferred range, somewhere just south of 70 degrees, walleye move and eat more, making them more susceptible to anglers. In Missouri, late spring and early fall provide some of the best walleye fishing of the year.

It's rare to see a walleye unless you are bringing it up on the end of your line. That's because these slender fish usually hang out in deeper water than many other species. Except during a brief early spring spawn, they seldom frequent the shallows and almost never jump from the water or cruise along the surface.

So that identification is not a problem, you should know that walleye are a longish fish—small ones are often called “cigars.” Their backs and sides are olive green to brown, and they have white bellies. Their large mouths are full of jagged teeth.

Walleyes also have a white spot on the lower part of their tail. The spot helps distinguish them from saugers, a smaller fish in the same genus. Saugers are also typically darker than walleye and their coloration is splotchier. Walleyes grow larger, too. The Missouri record is 21 pounds, 1 ounce. Sauger only rarely exceed 5 pounds.

The dictionary may help you understand how they got their name. The word walleye refers to a condition in which the eye shows more white than normal. At times, walleye will give you a milky white stare, especially if you shine a light on them.

Their eyes, like those of raccoons, deer, cats and other nocturnal animals, have a light gathering layer that helps them see well in dim or dark light. This gives them a vision advantage over much of their prey and is almost certainly the reason walleye fishing is often best in low light conditions, or even during the dark of night.

Sometimes just a darkening is enough. A few clouds blocking the sun or a brisk wind that cre-

ates a chop on the water may trigger walleyes to feed. Veteran anglers unanimously recommend fishing shallow water on the side of the lake that receives a strong wind. They speculate that the waves buffeting the shallows disorient small preyfish and muddy the water, offering walleyes a good chance to grab a meal.

Anytime you catch a walleye, note the location and fish the same area hard. Walleye are schooling fish, and where you catch one you'll often find more. The schools sometimes operate on a strict schedule, too. I've caught walleye on certain points at almost exactly the same time for days in a row. Those points were, from my perspective, without walleyes before and after those times.

WHITHER GOEST THOU?

There are numerous paths to becoming "one" with walleyes, but you might well start with a journey to Stockton Lake. After all, if the Conservation Department has spent more than

a decade helping the lake rank among the premier walleye waters in country, it seems like the beginning of wisdom to go there.

Like many Missouri walleye waters, Stockton Lake is a reservoir of underwater points that jut out into the arms and main body of the lake. The best points for walleye usually have deep water nearby.

Fish often feed on top of the points or can be found along the edge where they drop off into the depths. Gently sloping drop-offs are usually better than steep drop-offs. A lake map showing bottom contours is invaluable. Look for where the contour lines have some space between them, rather than being tightly bunched. A depth finder is an excellent tool for locating good spots for walleye.

Another good use for a depth finder is to locate baitfish. Some walleyes follow big schools of gizzard shad the way lions shadow wildebeest. Bigger fish—not just walleyes—show up as larger "marks" beneath the herds of shad. Sometimes

Walleye are schooling fish, and where you catch one you'll often find more. A depth finder is a great tool for locating good spots.



they'll be suspended in deep water several feet below the baitfish schools, but they may remain well below them on the bottom, as well.

Old river channels and bluff edges are ideal places to take advantage of the shad/walleye connection. Look especially for places where the shad school extends to within 5-10 feet of the bottom. A hard or rocky bottom, which most depth finders also can identify, is best. A good spot along a bluff is where rocks that have sloughed off the bluff face form a debris pile near the base.

Although it's the best known, Stockton is far from being the only good walleye lake in the state. You can find good walleye fishing at Pomme de Terre, Bull Shoals, Table Rock, Norfolk and Smithville lakes, as well as at many others, including some lakes not much larger than 100 acres.

Walleye fishing is not finesse fishing. You need a heavy but flexible line and a stout rod.

Walleye seekers can obtain good guidance by searching the Fishing Prospects Web page (www.MissouriConservation.org/4193) for lakes and rivers that offer walleye fishing. Click on the link to the lake or river you're interested in, and you'll also learn some valuable fishing and population information.

CONNECTING

How you fish for walleye depends primarily on what areas you are fishing. If you are targeting fish beneath schools of shad, for example, one of the best techniques is to jig for them with heavy spoons.

Jigging spoons trigger walleye into striking. Fish a spoon near the bottom. Rip or lift it up several feet and let it settle back down. When it is released, the spoon erratically darts and slides toward the bottom, resembling a crippled or



NOFPADOL PAOTHOONG

dying shad dropping out of the school. The wall-eye usually hit when the lure is falling, which is why you don't want a completely slack line.

If you're fishing deeper than 20 feet, you'll probably need a $\frac{3}{4}$ -ounce spoon. In shallower water you can get good results with $\frac{1}{2}$ -ounce spoons. Silver is a good starting color, but gold and lime colors also work well.

This isn't finesse fishing; use heavy (although flexible) line and a stout rod. If you are fishing jigging spoons correctly and in the right places, you'll frequently have to pull them out of snags.

You have a multitude of fishing options when fishing points. Many anglers make a "milk run" of these underwater structures. They'll first cast crankbaits over the top of a point and then troll the same lures along the sides. If they don't get any action, they'll move on to the next point.

If you're less jittery, you can work a point more slowly and thoroughly. Use a troll motor to drag a jig baited with minnow or night crawler along the sides and tip of the point. Fish right below the boat, and be alert because walleyes sometimes just swim along with the jig in its mouth. All you feel is a kind of heaviness that wasn't there before.

Cast and slowly retrieve the jig across the point to catch fish up on top. An even slower, but not necessarily less productive technique is to anchor atop the point and wait for the fish to find your jigs or baited hooks. Even bobber fishing works on flattish tops of points, as long as the bait is kept fairly close to the bottom.

My favorite technique is to drag spinner rigs along drop-offs. This works best where the drop isn't sudden, but gradual.

Spinner rigs have a blade and some beads in front of a hook or series of hooks that are usually baited with night crawlers. You can buy manufactured rigs or fascinate yourself by devising your own. The simple ingredients—clevises, blades and beads—are available at most bait shops. You can fish spinner rigs behind a three-way swivel, with a pinch-weight ahead of them on the line or behind bottom bouncers.

Experiment and let the fish tell you how fast to drag them. You wouldn't think so, but sometimes barely moving a spinner rig, with a slight lift-drop works best; other times you've got to speed the rigs along to attract walleye. No matter how fast you go, make sure you keep your rig near bottom.



GO WITH THE FLOW

Don't overlook walleyes in rivers. They may be the most underfished populations of all. Our big rivers—the Missouri and Mississippi—have plenty of wing dams, jetties and riprap, all of which attract walleye. The fish also relate to sand flats, rock ledges and clam beds at different times of the year.

The same trolling and casting techniques used in lakes work well in rivers. The fish are generally shallower than they are in reservoirs, but fishing near bottom is still a must. Look for current breaks, where something interrupts the flow. Seldom will the fish be in the fastest water.

You'll learn all this and much more on your own as you come closer to your goal of becoming a better walleye angler. The journey requires study, discipline and experimentation. That sounds like work, and it would be if it wasn't so much fun. ▲

Be alert when fishing for walleye; sometimes they just swim along with the jig in its mouth. All you feel is a heaviness that wasn't there before.

Hunting and Fishing Calendar

FISHING

Black Bass (certain Ozark streams, see the *Wildlife Code*)

5/23/09 2/28/10

impoundments and other streams year-round

Bullfrogs and Green Frogs Sunset Midnight

6/30/09 10/31/09

Trout Parks 3/1/09 10/31/09

HUNTING

Coyotes 5/11/09 3/31/10

Crow 11/1/09 3/3/10

Deer

Firearms

Urban 10/9/09 10/12/09

Youth 10/31/09 11/1/09

1/2/10 1/3/10

November 11/14/09 11/24/09

Antlerless 11/25/09 12/6/09

Muzzleloader 12/19/09 12/29/09

Archery

9/15/09 11/13/09

11/25/09 1/15/10

Doves 9/1/09 11/9/09

Furbearers 11/15/09 1/31/10

Groundhog 5/11/09 12/15/09

Pheasant

Youth (North Zone only) 10/24/09 10/25/09

North Zone 11/1/09 1/15/10

Southeast Zone 12/1/09 12/12/09

Quail 11/1/09 1/15/10

Youth 10/24/09 10/25/09

Rabbits 10/1/09 2/15/10

Rails (Sora and Virginia) 9/1/09 11/9/09

Ruffed grouse 10/15/09 1/15/10

Squirrels 5/23/09 2/15/10

Turkey

Firearms

Fall 10/1/09 10/31/09

Archery

9/15/09 11/13/09

11/25/09 1/15/10

Waterfowl please see the *Waterfowl Hunting Digest* or

see www.missouriconservation.org/7573

Wilson's (common) snipe 9/1/09 12/16/09

Woodcock 10/15/09 11/28/09

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit www.MissouriConservation.org/8707 or permit vendors.

The Department of Conservation's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone.

The toll-free number is 800-392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to www.wildlifelicence.com/mo/.



"They're great builders,
but not so good at electrical wiring."

Contributors



TOM CWYNAR is a writer/editor for the *Conservationist* who often writes about fishing Missouri waters. Tom said he has a variety of interests, but that he generally likes the outdoors more than the indoors and activity more than passivity. He is currently trying to teach his new little white boat to catch fish.

TOM MEISTER has worked for the Conservation Department for 18 years, as a volunteer naturalist, naturalist, interpretive programs supervisor and now a wildlife damage biologist, helping Missourians solve conflicts with wildlife. He lives on the Bourbeuse River and enjoys fishing, canoeing and exploring our state's resources.



NOPPADOL PAOTHONG discovered his passion for wildlife photography in college in 1995. Born in Thailand, he came to the U.S. in 1993 to study graphic arts before switching to journalism. When not traveling and photographing, he enjoys time at home cooking. He, his wife, and their two golden retrievers live in Columbia.

WHAT IS IT?

Big Bluestem

On the back cover and right is big bluestem (*Andropogon gerardii*) by Noppadol Paothong. A tallgrass prairie icon, it is common throughout Missouri in glades, prairies and savannas. Also found on roadsides, it is used as a warm-season forage for cattle and provides good wildlife cover. Big bluestem blooms June to September, and grows to a height of 5 to 9 feet. Flower heads are said to resemble upside down turkey claws. To learn more about native plants in Missouri, visit www.GrowNative.org.



AGENT NOTES

Coyotes are great predators and prey in Missouri.

EVERY YEAR I receive complaints about coyotes. They are often mistakenly blamed for missing or injured livestock and declining small game populations.

However, coyotes are a valuable resource. They help control wildlife populations. A large part of their diet consists of mice and rats. They are also an exciting animal to trap or hunt. The two most popular ways to hunt them are with dogs or with calls. Coyote hunting with calls is comparable to turkey hunting.



To hunt coyotes, Missouri residents between the ages of 16 and 64 are required to have a small game hunting license, with the exception of landowners on their property. There is no harvest limit. Coyotes may be hunted throughout most of the year; except for during daylight hours from April 1 through the day prior to the beginning of the spring turkey hunting season, and through the spring turkey hunting season. Additional regulations apply during deer season. Check the *Fall Deer and Turkey Hunting Regulations and Information* booklet or *A Summary of Missouri Hunting and Trapping Regulations* (available at permit vendors) for details.

Give coyote hunting a try. It's a great way to enjoy the outdoors and it can be a good warm-up for deer season. I think you will find it requires the patience of deer hunting with the heart-pounding excitement of turkey hunting.



Chris Cox is the conservation agent for Ralls County, which is in the Northeast Region. If you would like to contact the agent for your county, phone your regional Conservation office listed on Page 3.

WHAT IS IT?

Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on the inside of this back cover.



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